

CURRICULUM VITA

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EDUCATIONAL BACKGROUND:

- Ph.D. in Physical Chemistry from The University of Vermont, Burlington, Vermont, 1985.
- M. S. in Physical Chemistry from Boston University, Boston, Massachusetts, 1982.
- M.Sc. in Chemistry from Indian Institute of Technology, Bombay, India, 1977.
- B.Sc. from Calcutta University, Calcutta, India 1975.

PROFESSIONAL EXPERIENCE:

- *Chairman and Professor of Chemistry*, North Carolina Central University, Durham North Carolina, August 2010-present.
- *Professor of Analytical Chemistry, Indiana University Northwest*, Gary, Indiana, July 2000-July 2010. Full member of the Graduate Faculty of Indiana University, 1995-2010.
- *Adjunct Professor of Biochemistry, IU School of Medicine-Northwest*, September 2007 - 2010
- *Co-Editor of the journal "Research in Chemical Intermediates"*, published by VSP, Utrecht, The Netherlands, 2003-2015.
- *Visiting Scholar, Radiation Laboratory*, a US Dept. of Energy facility at the University of Notre Dame, Indiana, Sept. 1990 – June 1998, August 99-July 2010.
- *Visiting Professor, Particulate Fluids Processing Center*, Department of Chemistry, University of Melbourne, Parkville, Victoria, Australia, July 2005-December 2005. (sabbatical leave from Indiana University Northwest)
- *Chairman, Department of Chemistry, Physics and Astronomy*, Indiana University Northwest, Gary, Indiana, August 1999-May 2001.
- *Visiting Scientist, Advanced Mineral Products Research Center*, Department of Chemistry, University of Melbourne, Parkville, Victoria, Australia, July 1998-June 1999. (sabbatical leave from Indiana University Northwest)
- *Chairman, Department of Chemistry, Physics and Astronomy*, Indiana University Northwest, Gary, Indiana, July 1996-May 1998.
- *Assoc. Professor of Chemistry, Indiana University Northwest*, Gary, Indiana, July 1995-2000.
- *Asst. Professor of Chemistry, Indiana University Northwest*, Gary, Indiana from 1990-1995.
- *Asst. Professor of Physical Chemistry, Bloomsburg University*, Bloomsburg, Pennsylvania, Aug. 1985-Sept. 1989.

GRANTS, FELLOWSHIPS AND HONORS RECEIVED:

1. NSF "Partnership for Research and Education in Nanomaterials between Pennsylvania State University (PSU) and North Carolina Central University (NCCU)" \$3.3 million from 2015-20, Co-PI and Project leader of Thrust 3.
2. US Dept. of Energy: "Indiana Advanced Electric Vehicle Training and Education Consortium" co-PI in a joint proposal with Purdue University as the lead; for \$6.1million,.
3. Illinois-Indiana Sea Grant (IISG), NOAA " Real-time Fluorometric Assay for Sewage Presence: A Cost-effective Method to Determine Potential Water Quality Threats to Swimmers and Ecosystem Health" \$120,000 over 2 years
4. US EPA Treatment and Technology Division "Pulse Radiolysis Analyses of CCL and Related Chemicals." \$20,000 1 year contract with Dr. Julie Peller and myself.

5. US Army Communications-Electronics Command Grant "Center for Advanced Fuel Cell Technology", with University of Notre Dame; October 2004-December 2007. \$140,000.
6. Australian Research Council, July 2005: International Collaborative Grant for AU\$11,600 "Sonochemical Synthesis of Nanoparticles for Fuel Cell Applications" awarded to Prof. F. Grieser; Dr M. Ashokkumar (University of Melbourne) and Prof. K Vinodgopal (IUN)
7. Visiting Research Fellowship July 2005 at the Particulate Fluids Processing Center, School of Chemistry, University of Melbourne, Australia.
8. Japan Society for the Promotion of Science (JSPS) Visiting Fellow, Osaka University, March 2005.
9. Indiana 21st Century Research And Technology Fund "Center for Advanced Fuel Cell Technology", with University of Notre Dame; October 2003-August 2006, \$152,000.
10. US Army Communications-Electronics Command Grant "Center for Advanced Fuel Cell Technology", with University of Notre Dame; April 2003, \$83,648 for 1 year.

RECENT JOURNAL PUBLICATIONS:

1. Sundaram Ganesh Babu, a Ramalingam Vinoth, Dharani Praveen Kumar, Muthukonda V. Shankar, Hung-Lung Chou, **Kizhanipuram Vinodgopal** and Bernardshaw Neppolian "Influence of Electron Storing, Transferring and Shuttling on Reduced Graphene Oxide at the Interfacial Copper Doped TiO₂ p-n Hetero-junction for Increased Hydrogen Production." *Nanoscale*, 2015, 7, 7849-7857
2. Matthew P. McDonald, Ahmed Eltom, Felix Vietmeyer, Janak Thapa, Yurii Morozov, Denis A. Sokolov, Jose H. Hodak, Kizhanipuram Vinodgopal, Prashant V. Kamat, and Masaru Kuno; "Direct Observation of Spatially Heterogeneous Single-Layer 2 Graphene Oxide Reduction Kinetics." *Nanoletters*, 2013, 13 (12), pp 5777–5784
3. Zhen Fang, Akitaka Ito, Andrew C. Stuart, Hanlin Luo, Zuofeng Chen, K. Vinodgopal, Wei You, Thomas J. Meyer, and Darlene K. Taylor "Soluble Reduced Graphene Oxide Sheets Grafted with Polypyridylruthenium-Derivatized Polystyrene Brushes as Light Harvesting Antenna for Photovoltaic Applications." *ACS Nano*, 2013, 7 (9), 7992–8002.
4. Gui-Ping Dai, Marvin H. Wu, Darlene K. Taylor, and K. Vinodgopal "Square-Shaped, Single-Crystal, Monolayer Graphene Domains by Low Pressure Chemical Vapor Deposition" *Materials Research Letters* 2013, 1, 67-76
5. Gui-Ping Dai, Marvin H. Wu, Darlene K. Taylor, M. Kyle Brennaman, and K. Vinodgopal "Hybrid 3D Graphene and Aligned Carbon Nanofiber Array Architectures", *RSC Advances* 2012, 2, 8965-8968
6. K. Vinodgopal, B. Neppolian, Najah Salleh, Ian V. Lightcap, Franz Grieser, Muthupandian Ashokkumar, Tomas T. Ding and Prashant V. Kamat, "Dual-Frequency Ultrasound for Designing Two Dimensional Catalyst Surface: Reduced Graphene Oxide-Pt Composite" *Colloids & Surfaces A: Physicochem. Eng. Aspects* 2012, 409, 81-87s.
7. K. Vinodgopal, B. Neppolian, Ian V. Lightcap, Franz Grieser, Muthupandian Ashokkumar, and Prashant V. Kamat, "Sonolytic Design of Graphene-Au Nanocomposites. Simultaneous and Sequential Reduction of Graphene Oxide and Au(III)". *J. Phys. Chem. Letters*, **2010**, 1, 1987-1993.
8. Brian.Seger, Anusorn Kongkanand, K. Vinodgopal, and Prashant V. Kamat "Platinum Dispersed on Silica Nanoparticles for PEM Fuel Cells" *J. Electroanalytical Chemistry*, **2008**; 621 (2) 198-204
9. Brian.Seger, K. Vinodgopal, and Prashant V. Kamat "Proton Activity in Nafion Films: Probing Exchangeable Protons with Methylene Blue" *Langmuir*; **2007**; 23(10); 5471-5476.
10. Anusorn Kongkanand, K. Vinodgopal, Susumu Kuwabata, and Prashant V. Kamat, "Highly-dispersed Pt catalysts on Single-Walled Carbon Nanotubes and Their Role in Methanol Oxidation." *J. Phys. Chem. B.* **2006**, 110, 16185-16188.
11. K. Vinodgopal, Yuanhua He, Muthupandian Ashokkumar and Franz Grieser, "Sonochemically Prepared Platinum-Ruthenium Bimetallic Nanoparticles", *J. Phys. Chem B.* **2006**, 110, 3849-3852
12. Robel, I., Girishkumar, G., Bunker, B. A., Kamat, P. V. and Vinodgopal, K., Structural changes and catalytic activity of platinum nanoparticles supported on C₆₀ and carbon nanotube films during the operation of direct methanol fuel cells,. *Appl. Phys. Lett.*, **2006**, 88, 073113.

13. G. Girishkumar, Timothy D. Hall, K. Vinodgopal, and Prashant V. Kamat "Single Wall Carbon Nanotube Supports for Portable Direct Methanol Fuel Cells" J. Phys. Chem. B. **2006**, 110 (1), 107 -114,
14. G. Girishkumar, **Matthew Rettker, Robert Underhile**, David Binz, K. Vinodgopal, Paul McGinn and Prashant V. Kamat, "Single Wall Carbon Nanotube based Proton Exchange Membrane Assembly for Hydrogen Fuel Cells" Langmuir, **2005**, 21, 8487-8494.
15. Kristine Drew, G. Girishkumar, K. Vinodgopal and Prashant V. Kamat, "Boosting the Fuel Cell performance with a Photocatalyst. $\text{TiO}_2/\text{Pt-Ru/C}$ Hybrid Catalyst for Methanol Oxidation" J. Phys. Chem.B, **2005**, 109, 11851-11857.
16. G. Girishkumar, K. Vinodgopal and Prashant V. Kamat, "Carbon Nanostructures in Portable Fuel Cells: Single Wall Carbon Nanotube Electrodes for Methanol Oxidation and Oxygen Reduction" J. Phys. Chem.B, **2004**, 108, 19960-19966.
- 17.** Prashant V. Kamat, K. George Thomas, Said Barazzouk, G. Girishkumar, K. Vinodgopal and Dan Meisel "Self-Assembled Linear Bundles of Carbon Nanotubes and their Alignment in a DC-Field", J. Amer. Chem. Soc. **2004**, 126, 10757-10762